

025000-074

- 2 -

PATENT

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) An autonomous gas powered ram, comprising:
 - (a) a first body defining a first internal cavity;
 - (b) a first piston mounted within said first internal cavity and being attached to an actuator, said first piston being operative for moving said actuator between a first operative position and a second operative position in relation to said first body, said second operative position being different than said first operative position; and
 - (c) a second body mounted within said first internal cavity, said second body comprising:
 - i) a second internal cavity defined by an internal wall, said internal wall comprising a locking portion;
 - ii) an explosive charge located in said second internal cavity, said explosive charge being adapted for detonating in response to an impulse; and
 - iii) a second piston located within said second internal cavity and attached to a rod, said second piston being operative for causing said rod to move from a first position to a second position in response to the detonation of said explosive charge, wherein displacement of said rod from said first position to said second position causes said actuator to move towards said second operative position, and in said second position, said rod is engaged with said locking portion in order to prevent said actuator from returning to said first operative position.
2. (Original) An autonomous ram as defined in claim 1, wherein said rod comprises a plurality of protrusions each having an angled surface and an abutment surface.

3. (Original) An autonomous ram as defined in claim 2, wherein said rod extends along a longitudinal axis, said angled surfaces defining an angle between 30 and 60 degrees with respect to the longitudinal axis of said rod.
4. (Original) An autonomous ram as defined in claim 2, wherein said angled surfaces define an angle of 45 degrees with respect to the longitudinal axis of said rod.
5. (Original) An autonomous ram as defined in claim 2, wherein said locking portion of said second body comprises a plurality of grooves having an abutment surface for engaging with the abutment surface of at least one of said plurality of protrusions when said rod is in said second position.
6. (Original) An autonomous ram as defined in claim 5, wherein said second body extends at least partially within said first piston.
7. (Original) An autonomous ram as defined in claim 6, wherein said impulse is selected from the group consisting of an electrical impulse, a chemical impulse and a pressure change.
8. (Original) An autonomous ram as defined in claim 7 wherein said main body comprises a first end portion and a second end portion, said first end portion comprises a cap and said second end portion defines a passageway through which said actuator extends.
9. (Original) An autonomous ram as defined in claim 8, wherein said second body is adapted to be connected to said cap.
10. (Original) An autonomous ram as defined in claim 9, wherein said cap is removably connected to said first body, and said second body is removably connected to said cap.

025000-074

- 4 -

PATENT

11. (Original) An autonomous ram as defined in claim 10, wherein said actuator comprises a distal end, said distal end being positioned at a first distance from said second end portion of said main body when said actuator is in said first operative position, and positioned at a second distance from said second end portion of said main body when said actuator is in said second operative position, said second distance being greater than said first distance.
12. (Original) An autonomous ram as defined in claim 11, wherein said first body comprises fluid pathways for admitting pressurized working fluid into said first internal cavity for acting on said first piston, thereby enabling said first piston to move said actuator between said first operative position and said second operative position.
13. (Original) An autonomous ram as defined in claim 1, wherein said second internal cavity comprises a detonation chamber.
14. (Original) An autonomous ram as defined in claim 13, wherein said second body comprises at least one passageway for permitting fluid communication between said detonation chamber and said first internal cavity, such that upon detonation said first internal cavity defines an expansion chamber.
15. (Original) An autonomous ram as defined in claim 14, wherein said expansion chamber has a larger volume than said detonation chamber.
16. (Original) An autonomous ram as defined in claim 15, wherein gas in said expansion chamber applies pressure on said first piston.
17. (Original) A ram, comprising:
 - (a) a main body comprising an internal cavity;
 - (b) a first piston slidingly mounted in said internal cavity and capable of movement therein;

025000-074

- 5 -

- (c) a second piston at least partially mounted in said first piston;
 - (d) an actuator mounted in said main body, said first piston being coupled to said actuator in a driving relationship, whereby movement of said first piston in said internal cavity causes displacement of said actuator with relation to said main body;
 - (e) a fluid-pathway opening in said internal cavity for admitting pressurized working fluid to act on said first piston to move said first piston and displace said actuator; and
 - (f) an explosive charge located within said ram, said explosive charge being adapted to detonate in response to application of an impulse thereto, a detonation of said explosive charge causing movement of said second piston thereby displacing said actuator relative to said main body, the displacement of said actuator being independent of the pressurized working fluid.
18. (Original) An autonomous ram as defined in claim 17, wherein said impulse is selected from the group consisting of an electrical impulse, a chemical impulse and a pressure change.
19. (Original) An autonomous gas powered ram, comprising
- (a) a main body comprising an internal cavity;
 - (b) a first piston capable of movement in said internal cavity;
 - (c) a second piston at least partially mounted in said first piston;
 - (d) an actuator mounted in said internal cavity, said actuator being movable in said cavity from a first operative mode to a second operative mode, in said first operative mode said actuator being in a first position relative to said main body, in said second operative mode said actuator being in a second position relative to said main body, said first position being different from said second position, said actuator being connected to said first piston whereby movement of said first piston in said internal cavity causes displacement of said actuator between said operative modes; and

025000-074

- 6 -

PATENT

- (e) an explosive charge in a detonation chamber located within said ram, said explosive charge being adapted to detonate in response of an impulse thereto, a detonation of said explosive charge causing movement of said second piston thereby displacing said actuator towards said second operative mode, wherein said internal cavity comprises a gas expansion chamber communicating with said detonation chamber once said actuator moves towards said second operative mode, the volume of said gas expansion chamber being at least equal to the volume of said detonation chamber.
20. (Original) An autonomous ram as defined in claim 19, wherein said impulse is selected from the group consisting of an electrical impulse, a chemical impulse and a pressure change.
21. (Currently amended) A cartridge suitable for being mounted within the main body of a ram, the main body of the ram having a cavity with a first piston mounted therein for moving an actuator between a first operational position and a second operational position, said cartridge comprising:
- (a) an internal cavity defined by an internal wall, said internal wall comprising a locking portion;
 - (b) an explosive charge located in said internal cavity, said explosive charge being adapted for detonating in response to an impulse; and
 - (c) a second piston located within said internal cavity and attached to a rod, said piston being operative for causing said rod to move from a first position to a second position in response to the detonation of said explosive charge, wherein displacement of said rod from said first position to said second position causes the actuator to move towards the second operative position, and in said second position, said rod is engaged with said locking portion in order to prevent the actuator from returning to the first operative position.

025000-074

- 7 -

PATENT

22. (Original) A cartridge as defined in claim 21, wherein said rod comprises a plurality of protrusions each having an angled surface and an abutment surface.
23. (Original) A cartridge as defined in claim 22, wherein said rod extends along a longitudinal axis, said angled surfaces defining an angle between 30 and 60 degrees with respect to the longitudinal axis of said rod.
24. (Original) A cartridge as defined in claim 23, wherein said angled surfaces define an angle of 45 degrees with respect to the longitudinal axis of said rod.
25. (Original) A cartridge as defined in claim 24, wherein said locking portion of said cartridge comprises a plurality of grooves having an abutment surface for engaging with the abutment surface of at least one of said plurality of protrusions when said rod is in said second position.
26. (Original) A cartridge as defined in claim 25, wherein said cartridge extends at least partially within the piston of the ram.
27. (Original) A cartridge as defined in claim 26, wherein said cartridge comprises a detonation chamber.